APPENDIX 13 – CAPABILITY ASSESSMENT QUESTIONNAIRES

Agency	Completed
Department of Military & Veteran's Affairs	☐
Division Homeland Security & Emergency Management	☒
Department of Commerce, Community & Economic Development	☐
Department of Environmental Conservation	☐
Department of Health & Social Services	☐
Community Health and Emergency Medical Services	☒
Department of Fish & Game	☐
Department of Natural Resources	☐
Division of Forestry	☒
Division of Geological & Geophysical Surveys	☒
Division of Mining, Land & Water	☐
Department of Public Safety	☐
Division of Fire Protection	☐
Alaska State Troopers	☐
Department of Law	☐
Department of Education & Early Development	☐
Department of Corrections	☐
Department of Transportation	☐
Office of the Governor	☐
Office of Governmental Coordination	☒
University of Alaska – Fairbanks	☐
United States Geological Survey	☒

ALASKA STATE DEPARTMENT OF EMERGENCY SERVICES
AGENCY CAPABILITY ASSESSMENT QUESTIONNAIRE:

U.S.GEOLOGICAL SURVEY
Prepared by Christina Neal, 12/28/01

1. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc.

As the sole science agency for the Department of the Interior (DOI), the USGS collects, monitors, analyzes, and provides scientific information in support of sound management of our nation's earth and biological resources. Currently, natural hazards are one of the four areas of emphasis of USGS scientific efforts nationwide.

In Alaska, the USGS plays a key role in hazard mapping, identification, and early warning for many natural hazards addressed in the State plan including floods, earthquakes, volcanic eruptions, landslides, and tsunami. In addition, USGS science programs in biological sciences provide key baseline and monitoring data regarding ecosystem health and other key biological indicators of potential ecological disasters. For all hazards, USGS can provide a wide array of geospatial data and information management expertise to facilitate hazard identification, mitigation planning, and all phases of emergency response and recovery.

USGS conducts research activities that support hazard characterization or mitigation concerning floods, ground water quality, droughts, coastal storms, wildfires, geomagnetic storms, fish and wildlife diseases, and invasive species. USGS science assesses where natural hazards may occur and what the risks are to people, property, and ecosystems in harm's way. The USGS works cooperatively with Federal, State, and local agencies to assist in early warning and emergency response when natural catastrophes strike. USGS provides information needed by the public to understand the hazards in and around their community and to help mitigate losses and damages when they occur.

2. Do the responsibilities listed in #1 act to increase or decrease the potential for future losses to natural disasters in your state?

Decrease.

3. Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.

<u>Earthquakes:</u>

USGS provides significant funding to the Alaska Earthquake Information Center at the Geophysical Institute in Fairbanks (AEIC) and operates the national equivalent, NEIC (the USGS National Earthquake Information Center) in Golden, Colorado. Both groups detect, and report the size and location of significant earthquakes in Alaska. USGS has a small but close relationship with the West Coast/Alaska Tsunami Warning Center (WCATWC), sharing data and working together on common data acquisition and analysis needs. The WCATWC routinely locates earthquakes in Alaska as part of their mission to detect and warn of earthquake-generated tsunamis.

USGS also disseminates educational information about Alaska earthquakes and seismic hazard to the public, media, and other government agencies. As part of this effort, USGS scientists conduct outreach to educate the public and private sector about earthquake hazards. A notable accomplishment in this area was the USGS role in production of an informative earthquake-hazard newspaper insert that appeared in the Anchorage Daily News in the mid-1990s

USGS is the lead agency behind the Advanced National Seismic System (ANSS), an ongoing program to modernize the nation's seismograph networks in order to provide real time ground shaking analysis for emergency response agencies, to provide detailed site response information for improving earthquake engineering and building codes, and to provide high quality data to seismologists studying earth processes and earthquake dynamics. ANSS is a cooperative program and, in Alaska, USGS works in partnership with a broad cross section of agencies and organizations including ADGGS, AEIC, WCATWC, emergency management agencies, and a variety of private engineering firms. In 2001, ANSS upgraded existing urban seismic stations operated by the USGS National Strong Motion Program and, along with AEIC, is providing support to integrate that data with the Anchorage Strong Motion project operated by the UAFGI and largely funded by the Alaska Science and Technology Foundation. Plans for 2002 include upgrading the network in Fairbanks.

In support of seismic hazard mapping, USGS has published probabilistic seismic hazard maps for the state of Alaska. Through its National Earthquake Hazard Reduction Program (NEHRP), USGS contributes to an ongoing ADGGS project to compile geotechnical borehole data and deep water well logs for the Anchorage area. In addition, USGS funding supports the ongoing UAFGI and ADGGS effort to compile a modern seismic microzonation map for the Anchorage municipality.

USGS earth scientists, in cooperation with state, private, and academic institutions, conduct scientific research and geological mapping that improve our understanding of seismogenic potential and earthquake history in Alaska. Current projects in Alaska focus on developing a three-dimensional understanding of upper Cook Inlet and bounding fault structures to improve an assessment of earthquake hazard.

Finally, as outlined in the Federal Response Plan (FEMA: 9230.1-PL, April 1999), USGS will play a significant role in the federal government's planning for and response to any earthquake disaster in Alaska. Additional duties of USGS as part of a coordinated Department of the Interior Natural Disaster Response Plan for Alaska (Revision 2 – April 26, 2000) focus on (1) minimizing the loss of DOI life and property and (2) assisting the State of Alaska with Federal response activities.

Wildfires:

USGS mitigation-related programs related to wildfire hazards include on-demand acquisition, analysis, and production of imagery and maps for fire planning and response, as well as research into the effects of wildfires on ecosystems. The National Mapping Discipline of USGS has the capacity to generate a wide variety of image and map information that can provide Federal and State managers with assessments of vegetation characteristics pre- and post-fire, as well as snapshot views of ongoing fires of interest.

In Alaska, and in the lower 48 states as well, USGS produces a composite vegetation greenness map every two weeks that provides wildland fire agencies with up-to-date information on the status of vegetation in terms of its relative capacity to burn. The Normalized Derived Vegetation Index (NDVI) map is produced by analyzing NOAA AVHRR satellite imagery for a two week period and producing a composite map that shows the relative green-up and/or senescence of vegetation over large regional areas. When combined with current weather and fuel moisture information, fire management agencies are able to provide warnings on the relative fire danger as well as plan for response if a fire is started.

The USGS is also involved in the development of remote sensing technologies through the National Land-Fire Program that will provide much more accurate, cost effective, and timely maps of fire fuel types and quantities. By correlating recent Landsat-7 Satellite imagery with ground truth information from samples from across the landscape, scientists are developing fuel maps that provide information on community type, community canopy structure, and fuel size that will provide fire planners with the most accurate maps for large regional areas that have ever existed. These maps will allow for better prescriptions for fuels management, fire prevention, fire response and management . When combined with accurate and current ortho-imagery, roads, trails and terrain information, a whole new generation of decision support tools will be available.

USGS scientists also examine wildfire impacts to inform fire management policies of other agencies. The USGS-Alaska Science Center and the Alaska Department of Fish and Game-Division of Wildlife Conservation (ADF&G) is conducting a 5-year investigation of the impact of boreal forest fires on the Nelchina Caribou Herd in south-central and interior Alaska. This collaborative effort will evaluate relationships between fire history and lichen abundance; caribou habitat selection relative to lichen abundance; and caribou nutritional performance relative to habitat selection, lichen abundance, and spatial distribution. Results of this study will provide information directly applicable to caribou and fire management in Alaska.

Floods:

USGS hydrologists in Alaska have a comprehensive program of stream gauging to determine water levels, discharge, and assessment of flood impacts statewide. This information is used to determine flood frequencies and magnitudes along rivers and streams throughout the state.

The USGS currently maintains about 88 full time stream-gauging stations in Alaska and about 40 "partial-record" stations used for peak flow data collection. Data for some of these sites are available in real-time and are used by other agencies to issue official flood warnings. Historical surface-water data are available in a computerized data base for about 2,600 sites. Stream flow data collected by the USGS are used by Federal, State and local water-resource managers for fisheries management, flood forecasting, and low-flow water availability information, as well as by recreational users such as rafters, kayakers, and fishermen. USGS surface-water data are used to help design bridges and culverts and are used for flood-frequency calculations needed by Federal, State and local planners.

USGS hydrologic monitoring and research efforts also focus on the hazard associated with glacier outburst floods, a process of special concern in Alaska. USGS hydrologists are continually refining models for flood generation and potential inundation to improve the ability to assess risk and guide development planning.

USGS hydrologists in Alaska also conduct surveys of bridge sites to analyze the status and potential for damaging bridge-scour. Such information helps in assessment of bridges vulnerability during future floods.

Volcano Hazards

The USGS is the lead partner in the Alaska Volcano Observatory (AVO) a joint program of the USGS, the Geophysical Institute of the University of Alaska Fairbanks (UAFGI), and the State of Alaska Division of Geological and Geophysical Surveys (ADGGS). AVO was formed in 1988, and uses federal, state, and university resources to monitor and study Alaska's hazardous volcanoes, to predict and record eruptive activity, and to mitigate volcanic hazards to life and property.

AVO has three primary objectives related to volcano hazard mitigation:

- To conduct monitoring and other scientific investigations in order to assess the nature, timing, and likelihood of volcanic activity;
- To assess volcanic hazards associated with anticipated activity, including kinds of events, their effects, and areas at risk; and
- To provide timely and accurate information on volcanic hazards, and warnings of impending dangerous activity, to local, state, and federal officials and the public.

As of December 2001, AVO maintains seismic monitoring networks on 23 of Alaska's 41 active volcanoes (Our 23rd volcano, Wrangell, was added to our public list of monitored volcanoes in November of 2001). Data from these networks are recorded 24 hours per day and examined for precursory signs of eruptive activity. Several times a day, AVO also examines satellite images of Alaskan, Kamchatkan, and northern Kuril volcanoes for signs of eruptive activity or possible precursory heating of the ground. These two primary data streams are used routinely to assess the likelihood and character of volcanic activity. Additional monitoring methods such as space-based satellite radar interferometry, are under development.

AVO maintains a close operational link to the Kamchatkan Eruption Response Team (KVERT) located in Petropavlovsk-Kamchatsky. AVO assists KVERT in satellite monitoring of the 29 active Kamchatkan volcanoes and also plays a key role in disseminating eruption warnings from Kamchatka.

AVO scientists publish scientific research on volcanic processes and individual hazard assessments of dangerous Alaskan volcanoes. To date, published or in-press hazard assessments cover the following volcanoes: Hayes, Spurr, Redoubt, Iliamna, Augustine, the Katmai Group, Aniakchak, Shishaldin, Akutan, and Makushin. Additional reports for Shishaldin, Kanaga, Great Sitkin, Westdahl, Dutton, Okmok are in preparation and expected within the next year. Each report contains a description of the hazards posed by these volcanoes and the likely effects of future eruptions.

AVO regularly disseminates information about the status of volcanoes in Alaska and neighboring Kamchatka. Each week, AVO distributes a written status report to more than 100 recipients at federal, state, local agencies, the media and the public via Internet, fax, and recorded message line. During volcanic crises or if precursors to eruptive activity are noted, AVO follows a rigid emergency call-down protocol as well as Internet and fax outlets to notify

authorities, the media, the aviation industry, and the public. These procedures are codified in an Alaska Interagency Plan for Volcanic Ash Episodes (signatories include USGS, National Oceanic and Atmospheric Administration/National Weather Service (NOAA/NWS), Federal Aviation Administration (FAA), Department of Defense/US Air Force (DOD/USAF), and the Alaska Department of Emergency Services (AKDES); in future versions, the US Coast Guard (USCG) will also participate). AVO scientists also engage in a vigorous outreach program to classrooms, communities, and other agencies to inform and update awareness of volcano hazards in the region.

Of particular note is the special hazard Alaskan volcanoes pose to aircraft over flying the North Pacific and/or landing at Ted Stevens International Airport, the busiest air cargo hub in the nation. Each day, more than 20,000 passengers and many millions of dollars in cargo fly in corridors potentially affected by sudden explosive eruptions in Alaska or neighboring Kamchatka. AVO's early warning and response program is specifically geared to address this hazard and it has become a model emulated at many observatories around the world.

Landslides:

As one of a number of hazards being evaluated, USGS is addressing landslide potential along the gas-pipeline delivery route proposed by the State of Alaska. USGS is working cooperatively with ADGGS and many local, corporate, and community representatives to identify geological hazards and engineering issues, including the potential for landslide events, along the State of Alaska-preferred route. This work has begun with surficial geologic mapping and will be expanded in coming years to include development of a digital database of maps and three-dimensional GIS coverages related to sound management of this economically critical corridor.

Tsunami:

Tsunami warning is the responsibility of NOAA's West Coast/Alaska Tsunami Warning Center (WCATWC) in Palmer and tsunami hazard assessment and potential inundation mapping in Alaska is primarily a partnership between NOAA's Tsunami Mitigation Program and the Alaska Earthquake Information Center at the University of Alaska Fairbanks. USGS assists in the mission of WCATWC by sharing earthquake location technology and in evaluating non-seismogenic tsunami processes (e.g. volcanic landslides and debris flows) that can also generate hazardous waves. USGS scientists are working on identifying and modeling several possible paleo-tsunamis in Alaska. This work will improve our understanding of tsunami recurrence and potential inundation zones.

Erosion:

USGS hydrologists are actively engaged in studies related to riverbank erosion in selected high-use systems (e.g. the Alagnak, Kenai Rivers) and bridge scour at selected sites chosen in cooperation with state and local partners.

Biological:

Ongoing USGS scientific programs in the biological sciences pertain to many important ecological issues in Alaska such as ecosystem change, environmental toxins, impacts of hatchery enhancement on wild stocks of Pacific salmon, and other key aspects of overall health

of the Alaska environment. While not related to acute hazards to life and property in Alaska, these studies pertain to potentially severe, long term biological and economic hazards threaten our State. Much of this work is done cooperatively with other agencies and university researchers.

For example, in order to better understand the significance of modern ecological perturbations, USGS researchers are engaged in studies of Holocene Alaskan climate and ecosystem change as expressed in the floral and faunal record. Significant USGS resources are devoted to gathering baseline data for ongoing monitoring of such important ecological indicators as carbon and nitrogen phases in river water and population trends of indicator species in both marine and terrestrial arctic and subarctic environments in Alaska.

A number of USGS science programs also examine the origin, mobility, and toxicity of potentially dangerous trace elements and metals such as arsenic, mercury, cadmium, lead, selenium.

4. Does your organization own or manage lands or buildings in:
a) 100-yr floodplain
b) earthquake fault area
c) landslide/mudslide area
d) coastal area
e) areas subject to other hazards
If the answer is yes, what measures are being taken to protect these investments or structures?

No, the U.S. Geological Survey is not a land or building management agency. The General Services Administration is responsible for our building usage.

5. With what Federal, state, local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above?

PARTIAL LISTING:

Federal:

National Oceanic and Atmospheric Administration/National Weather Service
West Coast/Alaska Tsunami Warning Center
Federal Aviation Administration
Department of Defense/US Air Force
US Coast Guard
US Fish and Wildlife Service
National Park Service
Environmental Protection Agency
US Agency for International Development

State:
Alaska Earthquake Information Center

University of Alaska Anchorage
University of Alaska Fairbanks
Geophysical Institute University of Alaska Fairbanks
State of Alaska Division of Geological and Geophysical Surveys
Alaska Science and Technology Foundation
Alaska Department of Fish and Game-Division of Wildlife Conservation
Alaska Department of Emergency Services
Alaska Department of Transportation
Ted Stevens International Airport

Local/Private/Hybrid/Other:
Many individual communities, school districts in Alaska
Many Alaska Native Corporations in southwest Alaska and the Aleutians
Anchorage Daily News
Local radio and community/regional newspapers
Many Individual Air Carriers, local, regional, national, international
Drift River Oil Terminal
Canneries
Advanced National Seismic System
Anchorage Geotechnical Commission
Alaska Air Carriers Association

International:
Kamchatkan Volcanic Eruption Response Team
International Civil Aviation Organization
Airline Pilots Association
Air Transport Association

6. Describe any problems in coordination among Federal, state, and local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding, etc. How might these problems be remedied?

7. What are your organization's authorities?

Congress included natural hazard mitigation in the USGS' mandate in 1974 with passage of the Stafford Disaster Relief and Emergency Assistance Act. The Act, as amended, states, "The Director of the USGS, though the Secretary of Interior, has been delegated the responsibility to issue disaster warnings…for an earthquake, volcanic eruption, landslide, or other geological catastrophe."

8. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization's activities protect people and property from losses to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization's efforts in decreasing vulnerability?

9. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters?

See prior answers.

10. Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

11. Are public opinion and input used to build support for the agency's mitigation programs?

Yes; various communities and industry sectors in Alaska and the North Pacific are primary supporters of our hazard mitigation work on a day to day basis. Residents of communities at risk from natural hazards and affected by natural events communicate with USGS staff directly, helping to shape our priorities and to justify our work.

12. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement?

13. Are existing funding levels adequate to carry out hazard mitigation activities? What short-term and long-term initiatives are funding solutions should be explored to expand funding availability?

14. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

Alaska generally lacks detailed, modern, stereo aerial photography of many regions of interest to USGS scientists evaluating various hazards. Concurrently, Alaska lacks adequate topographic maps at scales necessary to conduct detailed investigations including the generation of high quality digital elevation models. This is especially true of remote areas such as the volcanic islands of the Aleutians.

15. List any other issues, problems, or ideas related to the following categories:

a) Communication and warning
b) Dam safety
c) Emergency preparedness
d) Floodplain management
e) Geologic hazard mitigation
f) Hazardous materials incidents
g) Land use
h) Public information/education

16. Please include any general observations or problems which may not have been covered by this questionnaire.

Capability Assessment Questionnaire

1. The Alaska Coastal Management Program (ACMP) addresses hazard mitigation through its Geophysical Hazard Areas Standard at 6 AAC 80.050. DGC recently began a revision to this standard. The current standard states:

> *(a) Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur.*
> *(b) Development in areas identified under (a) of this section may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.* (Eff. 7/18/78, Register 67)

Coastal districts develop coastal management plans that include enforceable policies developed under the Geophysical Hazards standard. Enforceable polices apply to development in the coastal zone. The Division of Governmental Coordination:

- coordinates the review and approval of coastal district plans,
- coordinates the review of development projects in the coastal zone for consistency with the enforceable policies of the ACMP, including district plans,
- provides funding for identification of hazards and changes to the ACMP that would reduce risk of development to hazards, and
- conducts outreach and education to the public, developers, and agencies regarding the ACMP and its programs, including minimizing risks to geophysical hazards.

2. The Division of Governmental Coordination's and the Alaska Coastal Management Program's responsibilities decrease the potential for future losses to natural disasters.

3. By administering the Alaska Coastal Management Program, the Division of Governmental Coordination ensures district coastal management plans and development within the coastal zone complies with the Geophysical Hazards standard at 6 AAC 80.050, which states:

> *(a) Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur.*
> *(b) Development in areas identified under (a) of this section may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.* (Eff. 7/18/78, Register 67)

Geophysical hazards include flooding, tsunami run-up, storm surge run-up, landslides, snowslides, faults, ice hazards, erosion, and littoral beach process.

DGC coordinates the review and recommends approval by the Coastal Policy Council of coastal district plans. DGC also coordinates the review of development projects in the coastal zone that require permits from two or more state agencies or that involve a federal permit or federal activity.

4. DGC does not mange land.

5. The Division of Governmental Coordination works with federal, state, and local governments at all levels to decrease vulnerability to geophysical hazards.

6. No definitive problems.

7. The Division of Governmental Coordination's authorities include:
Alaska Statute AS 46.40 and implementing regulations 6 AAC 50, 6 AAC 80, and 6 AAC 85. The Alaska Coastal Management Program also includes enforceable policies of coastal district plans, which include policies that further implement the Geophysical Hazard Standard at 6 AAC 80.050.

8. The Division of Governmental Coordination is currently in the process of revising the Geophysical Hazards Standard at 6 AAC 80.050 in an effort to better reflect current knowledge and practices for minimizing risk to geophysical hazards within the coastal zone.

9. Under Section 309 of the Coastal Zone Management Act, the Alaska Coastal Management Program may apply for funds to conduct projects that will enhance the ability of the ACMP to address Geophysical Hazards. For more information, refer to the *2001Enhancement Grants Program 309 Assessment and Strategy* from DGC.

In fiscal year FY 2001, the Alaska Division of Geological and Geophysical Surveys (DGGS) received enhancement grant funding to map earthquake hazards in Southwestern, Southcentral, and Southeast Alaska. In FY 1999 the Department of Community and Economic Development conducted an enhancement grant project and prepared a report entitled *Reduce Regulatory Conflicts in High Risk Flood Zones*. The project analyzed the regulatory conflicts among federal, state, and municipal requirements. Coastal districts will use the information from these projects as they update their plans.

10. The Geophysical Hazards Standard and coastal district enforceable policies written "under" that Standard are ultimately designed to reduce losses from natural disasters. Attached is a 31-page compilation of district enforceable policies that address geophysical hazards. Districts periodically revise their plans to address current concerns.

11. The Alaska Coastal Management Program requires extensive public notice and involvement during district plan development and individual project reviews.

12. Staffing issues are difficult to assess. In this context, they are probably adequate.

13. The Alaska Coastal Management Program does not conduct hazard mitigation projects as much as policy development to prevent or reduce the risk of loss from geophysical hazards. Geophysical hazards is a high priority for the ACMP for Section 309 funding.

14. Locating geophysical hazard data is a challenge for planning and project review purposes. The Department of Natural Resources is helpful as information is requested. However, on-line search and retrieval at a scale suitable for planning and project review purposes would greatly improve use of this information.

15. h) Access to hazard information and relevant policies, ordinances, and laws during review of a development project is extremely important.

16. No comment.

ALASKA FLOOD MITIGATION PLAN LIST

Communities with Flood Hazard Mitigation Plans that participate in the National Flood Insurance Program (NFIP):

Kenai Peninsula Borough (Disaster 1072)
City of Seward (Disaster 1072)
Talkeetna (approved by Mat-Su Borough as Talkeetna Comprehensive Plan)
City of Galena (Flood Mitigation Assistance-FMA grant)
City of Cordova (Disaster 1072)
City of Valdez (4/1/96) (Disaster 1072)
City of Shishmaref (Not approved by city council: MRAD prepared after State disaster) (ADES administered FMA Project grant for relocating homes)

Planning Projects in Progress:
Fairbanks North Star Borough (FFY99 FMA Planning grant)
City of Aniak (FFY98 FMA Planning Grant)
Port Graham, Unincorporated community w/in Kenai Peninsula Borough (FMA Project grant FFY99)

Cities with Flood Hazard Mitigation Plans - Not participating in the NFIP:

City of Alakanuk, Erosion, Flood and Land Use Plan (MRAD copy available; CDBG funded)
City of Allakaket (Disaster 1039, MRAD copy available)
City of Hughes (Disaster 1039, MRAD copy available)
City of Huslia (MRAD copy available)
City of Kivalina, Relocation Plan (Corps of Engineers or Northwest Arctic Borough)

Other entities with Plans:

Alaska Industrial Development & Export Authority (AIDA)- Terror Lake Hydroproject (Disaster 1072)
Alaska Railroad - mile 0-355 (Disaster 1072)

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ANSWERS
TO
CAPABILITY ASSESSMENT QUESTIONNAIRE

From: **Dam Safety and Construction Unit (Dam Safety)**
ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND AND WATER

Question 1
The Dam Safety and Construction Unit (Dam Safety) "supervises the safety of dams and reservoirs" in order to "ensure that the design, construction, enlargement, alteration, repair, maintenance, operation, and removal of dams and reservoirs is consistent with the protection of life and property" (AS46.17). The published mission statement of the Alaska Dam Safety Program is "to protect life, property, and the environment in Alaska through the effective collection, evaluation, understanding and sharing of the information necessary to identify, estimate and mitigate the risks created by dams." Article 3, Dam Safety, of Chapter 93 in Title 11 of the Alaska Administrative Code includes a hazard potential classification based on the risks created by the dam and reservoir. In practice, the higher risk structures are subjected to a greater degree of regulatory review, thereby decreasing the vulnerability to a relatively high, technological hazard. Dam Safety is responsible for issuing certificates of approval to construct, operate, modify, repair, remove or abandon a dam. Dam Safety promotes public awareness of this technological risk through a variety of methods including websites, publications, classroom lectures, and multimedia presentations.

Question 2
The responsibilities briefly outlined under #1 serve to decrease and mitigate the potential for future losses to natural disasters in Alaska by influencing the design standards for dams and reservoirs subject to natural disasters such as floods and earthquakes.

Question 3
The Alaska Dam Safety Program is responsible for supervising the safety of approximately 81 dams under state jurisdiction, including applications for new construction of state-jurisdictional dams. Non jurisdictional dams that are known to exist are periodically reviewed to determine if a change in jurisdiction has occurred, for example, due to new development downstream of an existing dam.

Question 4
Yes to (a) through (e). Dam Safety is responsible for the supervision of the safety of dams across the state of Alaska. The natural hazards associated with the locations of these dams are not catalogued; however, the permitting process is intended to identify and mitigate the risks created by these types of hazards through a technical review of hydrology, geology, seismic zone, and other technical considerations. New construction must meet new design standards. Existing dams are reviewed through a periodic safety inspection that is required every three to five years. The purpose of the periodic safety inspection is to identify potential problems that could lead to the failure of the dam and determine if remediation or mitigation is required.

Question 5

Dam Safety regularly works with FEMA and the Association of State Dam Safety Officials (ASDSO) on a national level and occasionally with the National Weather Service. On a state level, Dam Safety works with the ADHS&ES, the ADEC and the ADF&G. Locally, Dam Safety tries to work with local emergency response agencies through dam owners and operators who are required to develop and exercise an Emergency Action Plan for Class I (high) and Class II (significant) hazard potential dams. Dam Safety encourages dam owners and operators to include local emergency response agencies as key players in responding to real and simulated emergencies associated with the dam.

Question 6
The technological hazard created by dams often seems to be overlooked or underestimated. There is a serious need for mitigation funding for the rehabilitation of deteriorating or poorly designed dams.

The biggest problem in working with the various federal, state, and local agencies is communicating and understanding the roles that various parties play. This is most acute at a local level where perceived priorities, project understanding, and financial and human resources limit the ability of the various participants to coordinate effectively.

Question 7
The Alaska Dam Safety Program mitigates the technological hazard of dams through a regulatory process that includes maintaining an inventory of dams in Alaska, issuing permits for the construction, operation, repair, modification, removal and abandonment of dams, and supervising the periodic safety inspection and emergency action planning for dams. If necessary, the State Dam Safety Engineer is authorized to seek legal injunctions through the Attorney General's office or, in an emergency, to enter property and take whatever action is deemed as necessary to "protect life and property from the risks posed by the dam's operation or potential failure".

Question 8
AS 46.17 and Article 3 of 11 AAC 93 establishes the authority of the Alaska Dam Safety Program. Effective in 1987 and 1989 respectively, these statutes and regulations are relatively well written. However, the regulations are in need of limited updating. Currently, a draft revision of Article 3 of 11 AAC 93 is currently under review by the Alaska Department of Law after being released for public comment in 2003.

Question 9
The Alaska Dam Safety Program includes technical review of dam projects to determine the ability of the structure to withstand extreme natural occurrences such as low frequency rainfall or seismic events. The possibility always exist that a natural event occurs that exceeds the limit of the structure, possibly resulting in the compounding effect of a technological disaster on top of a natural disaster.

Question 10
Current and proposed dam safety regulations require owners and operators of dams to develop and exercise emergency action plans at Class I and II dams. These plans are intended to anticipate an emergency condition at a dam from various causes, including natural disasters, in order to prevent or reduce the potential losses from a partial or complete failure of the dam.

Dam Safety recently published "Guidelines for Cooperation with the Alaska Dam Safety Program" (2003). This document is a compendium of information regarding the Alaska Dam Safety Program and includes recommendations for minimum standards for dam design, construction and operation such as hydrologic and seismic evaluations, construction quality assurance and emergency action planning.

Question 11
The focus of Dam Safety is primarily on a technical perspective of dams and reservoirs. Consideration of the social and economic impacts of a dam is not within the scope of the Alaska Dam Safety Program. Consequently, there is no public comment opportunity in the permitting process. However, the proposed revisions to the dam safety regulations were released for public review and comment. In addition, the program is administered on a cooperative basis in order to foster communication and good will. Public awareness of the concept of dam safety is promoted.

Question 12
The staff of Dam Safety consists of one Technical Engineer II. This individual is responsible for supervising the safety of over 80 dams in Alaska, as well as the technical review of all applications for new construction that may be submitted. The result is a "fireman's job" where limited resources must be allocated to projects with a perceived high priority. AS 46.17 authorizes Dam Safety to retain a contractor to assist with technical reviews; however, this is practical only with a new application that has a sufficient fee to cover the associated costs. (This also adds administrative responsibilities to the workload that further interferes with the technical engineering responsibilities of the job.)

Because the number of dams in Alaska is small in comparison to other states, a large dam safety staff is not be justified. However, an Engineering Assistant I or II would be a direct benefit with mitigating affects on dam hazards. This would result in a total staff of two engineers in the Alaska Dam Safety Program. The additional cost would be associated salary and benefits. The risk associated with limited technical staff was identified in a peer review of the Alaska Dam Safety Program conducted by ASDSO in 2002.

Question 13
Existing funding for the Alaska Dam Safety Program is not adequate for the salary and benefits of the current staff level of one Technical Engineer II. Additional funds are necessary for travel expenses to allow reasonable and regular field inspections. Field inspections are imperative in order to evaluate site conditions and increase project understanding. At a minimum, the state general fund budget should fully support this important hazard mitigation program.

Current financial assistance through the National Dam Safety Program is limited. The Small Watershed Rehabilitation Act was recently funded, but Alaska does not have any dams that qualify for financial assistance under the bill. Similar financial support for a more broad range of dams in need of hazard mitigation related rehabilitation is a current subject of discussion on a national level, and should be discussed on a state level also.

Question 14
Yes. Determining the risk associated with a particular facility requires access to a broad range of technical information that is often not available. Obtaining this information can be a costly and time-consuming operation. For example, construction records may not be available for an old dam. To fully understand the ability of the structure to withstand an earthquake may require a geotechnical investigation of the dam and its foundation, a site specific seismic assessment, and a structural stability evaluation. Collecting this type of information could easily cost over $100,000. A number of dam owners in Alaska simply lack the funding to fully understand the risks created by their dams.

Question 15
All of the subjects listed under this question are related to the Alaska Dam Safety Program to a degree, as indicated in the following discussion.

Dam Safety is strong advocate of communication as the key to a safe dam. Effective communication must occur between regulatory agencies and the dam owners and operators during all phases of a project, from conception through construction and during operation. In addition, potentially affected parties must be included during emergency planning and response. The requirement for an emergency action plan is the first step in emergency preparedness, which is an important element in the emergency action planning process.

Floodplain management and land use are important considerations in dam hazard mitigation. Dams have the potential for dramatic impacts on floodplains, both positive and negative, and should be considered in any floodplain management plan. Class I dams in Alaska are being required to follow FEMA guidelines for emergency action plans, which includes a downstream inundation map. Restrictions on downstream development based on this information would be a positive contribution to dam hazard mitigation. However, the pros and cons of this concept are subject to much discussion and controversy. Nevertheless, including dams and dam inundation zones on FEMA floodplain maps and requiring consideration of dams to be included in real estate disclosure laws could accomplish this objective.

Hydrologic and geologic hazards are considered in the technical review of dams during the design and periodic safety inspection processes. However, a comprehensive assessment of these hazards on all of the dams in the state inventory is incomplete.

Hazardous materials incidents are related to dam safety with respect to tailings dams at mines. The nature of these dams is typically such that a failure has the potential for adverse environmental impacts. Hazardous material incidents could also occur during construction of a dam, however, Dam Safety typically relies on other authorities such as oil spill regulations to address this hazard although a pollution control plan may be required as a condition to a certificate of approval for construction of a dam.

The concept of dam safety in Alaska currently suffers from relative obscurity from a public awareness perspective. Many Alaskans are not aware of dams in Alaska or the Alaska Dam Safety Program. Dam Safety has increased public awareness by promoting the National Dam Safety Awareness Day, hosting the Western Region Conference of the Association of State Dam Safety Officials, and providing local training opportunities for dam owners and operators, consultants, regulators, and emergency managers.

Question 16

No further comments.

CAPABILITY ASSESSMENT QUESTIONNAIRE

1. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc Do the responsibilities listed in #1 act to increase or decrease the potential for future losses to natural disasters in your state?

The Division of Insurance provides consumers with assistance and referrals in finding insurance for dwellings and against most of the named perils. Some perils are excluded from most policy coverage such as landslides and earth movements, we then can advise the consumers of the non-standard markets that may offer some of the needed coverages. In addition, we do provide policy makers with critical information as to the availability of coverage and the health of the insurance markets. In cases where the insurance market has identified high risk through lack of availability and higher prices, the Division has testified to policymakers on ways to reduce the underlying risks. Our actions decrease the potential for future financial losses from natural disasters for our consumers.

2. Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.

The Division of Insurance provides information to the public for knowledgeable management of their insurance affairs. With the information people can obtain insurance and financially protect themselves from the consequences of some the hazards.

3. Does your organization own or manage lands or buildings in:
    a) 100-yr floodplain
    b) earthquake fault area
    c) landslide/mudslide area
    d) coastal area

e) areas subject to other hazards

If the answer is yes, what measures are being taken to protect these investments or structures? The Division of Insurance does not own or manage lands.

4. With what Federal, state, local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above? The Division of Insurance is not involved in these activities.

5. Describe any problems in coordination among Federal, state, and local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding, etc. How might these problems be remedied? The Division of Insurance is not involved in these activities.

6. What are your organization's authorities? The Division of Insurance regulates the insurance industry. Our regulations and statutes provide for the public protection in regards to the way insurance companies handle claims and provide insurance to the Alaska consumers.

7. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization's activities protect people and property from losses to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization's efforts in decreasing vulnerability? The Division of Insurance's statutes and regulation deal indirectly with the above mentioned situations through the regulation of insurers. We believe that our regulations are adequate to accomplish this task.

8. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters? The Division of Insurance has no direct involvement in these matters.

9. Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

The Division of Insurance has internal procedures to assure the continuation of the operation of this Division in case of a natural disaster and requires insurance agencies and insurers to be prepared for a natural disaster to be able to serve the public.

10. Are public opinion and input used to build support for the agency's mitigation programs? This question is not applicable to the Division of Insurance.

11. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement? The Division of Insurance staff absorbs present mitigation activities into their daily workload.

12. Are existing funding levels adequate to carry out hazard mitigation activities? What short-term and long-term initiatives are funding solutions should be explored to expand funding availability? The Division of Insurance's limited mitigation activity is not directly funded but is included in the Divisions' operation.

13. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

The Division of Insurance does not experience any difficulties in this matter.

14. List any other issues, problems, or ideas related to the following categories:
    a) Communication and warning
    b) Dam safety
    c) Emergency preparedness
    d) Floodplain management
    e) Geologic hazard mitigation
    f) Hazardous materials incidents
    g) Land use
    h) Public information/education The Division of Insurance has no comments

15. Please include any general observations or problems which may not have been covered by this questionnaire. The Division of Insurance has no comments

1. Alaska Department of Environmental Conservation's (ADEC) primary roles and responsibilities concerning hazards mitigation are ensuring safe food and safe water, and pollution prevention and pollution response. ADEC ensures water treatment plants, landfills, and bulk fuel storage tank farms are safely constructed and operated in communities. Agency and facility response plans include hazards identification and pollution prevention and response strategies.
2. In the past, activities to meet #1 above have been neutral concerning the potential for future losses to natural disasters; other than spill containment requirements for bulk fuel storage tank farms. ADEC encourages owners and operators to site projects in ways considering the impacts of potential natural disasters; however, we do not have the ability to mandate facility locations.
3. Through plan reviews for construction projects, and pollution response contingency plans, ADEC encourages owners and operators to locate their projects in places where impacts of a potential natural disaster will be minimized. The agency does not have regulatory authority to mandate siting of projects.
4. ADEC occupies regular office space throughout the state, consistent with the community standards for such buildings. We have no unusual facilities that would standout as being located in a uniquely hazardous location.
5. ADEC works with the U.S. Environmental Protection Agency, U.S. Coast Guard, U.S. Bureau of Land Management, Alaska Department of Natural Resources, Alaska Department of Military and Veterans Affairs, and all state and local emergency response agencies.
6. None.
7. Title 46, Alaska Statutes.
8. ADEC has no authority to mandate facility locations. Usually, this is a local government matter. Therefore, within the existing statutory authority for ADEC, we have adequate authority to carry out our mission.
9. Once an incident occurs, ADEC responds to the incident in a manner designed to secure, contain, and cleanup discharges of oil and hazardous substances. Response methods are designed to reduce potential losses from spills and releases. ADEC also has the authority to require oil handling facilities to plan for incident responses with adequate equipment and resources.
10. ADEC has several spill response documents and spill contingency plan policies, procedures, and regulations. We have no internal documents concerning reduction of losses from natural disasters as it pertains to ADEC facilities.
11. Yes.
12. ADEC has adequate existing staff, considering the current agency mission.
13. The State of Alaska Legislature sets existing funding levels to ADEC for carrying out the agency mission. Normal oil and hazardous substance

response funding is adequate. The agency is expected to face shortfalls in funding for food safety and homeland security, as of this writing.
14. No.
15. None.
16. None.

DRAFT

Capability Assessment Questionnaire
Hazard Mitigation Plan (409) for 2004

Denali Commission

File code: 4 21 1700

This document is requested as part of the development of the State Hazard Mitigation Plan (409 Plan).

1. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding (funding?) of housing infrastructure, development of codes or standards, public education, etc.

The Denali Commission activities and programs decrease the vulnerability to hazards in communities by improving bulk fuel storage facilities, and providing more reliable power systems, and primary care clinics.

2. Do the responsibilities listed in #1 act to increase or decrease the potential for future losses to natural disasters in your state?

While the Commission is making considerable investments in remote locations which could potentially increase risk, modern engineering and careful location of facilities should in fact decrease risk . The potential for loss of life is decreased due to available and environmentally-clean fuel storage and the presence of medical infrastructure, including telemedicine sites.

3. Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan. (8/04 draft)

The Denali Commission has assisted in the mitigation of technological hazards including infrastructure failure and local oil spills. The Energy Program has delivered a number of power up-grades that increase system reliability. In addition, improved bulk fuel storage has decreased fuel handling accidents.

4. Does your organization own or manage lands in:
   a) 100 year floodplain
   b) earthquake fault area
   c) landslide/mudslide area
   d) coastal area
   e) areas subject to other hazards

If the answer is yes, what measures are being taken to protect these investments or structures?

Denali Commission does not manage or own buildings in the path of these risk factors. During the design and funding phases, a number of questions are asked to determine project sustainability over the life cycle of the investment, including risk associated with the above factors.

In addition, the Commission helps fund the Initiative for Accelerated Infrastructure Development, which has increased the rate of production of DCED's community profile maps, which include topography, flood zones, etc.

5. With what Federal , state, local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above?

Denali Commission Memorandum of Understanding has 31 co-signatory organizations and partners. Principle agencies involved in project design include Corps of Engineers, EPA, USDA RD, USDA RUS, EDA, and Alaska agencies: DEC, DCED, DOT&PF, AIDEA /AEA. In the health arena, major partners include: USH&HS, IHS, ANTHC, and AH&SS. Non-governmental organizations include the Rasmuson Foundation and the Alaska Village Electric Cooperative.

6. Describe any problems in coordination among Federal, state, and local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding etc. How might these problems be remedied?

As the Denali Commission is a pass-through organization for federal funding, there are problems when the federal offices are delayed in transmitting funds and the construction window is missed for the calendar year. The Federal Co-Chair of the Commission is actively working to increase agency understanding of the realities of delivering services to rural Alaska.

These problems will be remedied 1) when the FFY funding cycle occurs in the first quarter of the fiscal year, and 2) when federal executives in charge of allocation visit Alaska and understand the remoteness and other factors which impact service delivery in Alaska.

7. What are your organization's authorities?

Denali Commission Act of 1998. 42 USC 3121.
SEC. 302. PURPOSES:
The purposes of this title are as follows: (1) To deliver the services of the Federal Government in the most cost-effective manner practicable by reducing administrative and overhead costs. (2) To provide job training and other economic development

services in rural communities particularly distressed communities (many of which have a rate of unemployment that exceeds 50 percent). (3) To promote rural development, provide power generation and transmission facilities, modern communication systems, water and sewer systems and other infrastructure needs.

8. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization's activities protect people and property from losses due to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization's efforts in decreasing vulnerability?

The Denali Commission investment policy is designed to facilitate appropriate investment in communities with identified natural hazards (coastal and extreme riverine erosion) and documented population decline that may jeopardize the community's ability to operate and maintain infrastructure.

9. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters?

Denali Commission is one of the investing partners in DCED's IAID Program (Initiative for Accelerated Infrastructure Development) which does base maps for communities that include flood and other hazard data. Site control for construction projects includes determination of floodplain risks.

10. Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

The Denali Commission Draft Investment Policy includes analysis of risk from environmental factors in its matrix for evaluation of funding proposals.

11. Are public opinion and input used to build support for the agency's mitigation programs?

The Denali Commission has recently announced that community plans will be required for all funding proposals for FFY 05 funding. Included in the checklist of items to consider in the plan is an awareness of local environmental hazards. By bringing this into focus, the local community will take responsibility for its own hazard mitigation.

12. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement?

At this time, the scope of the Denali Commission assignment in hazard mitigation is confined to planning and due diligence in pre-construction site control. Through these activities, we work with our partner organizations to minimize vulnerability.

13. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

The DCED IAID community mapping program is key to accessing data for remote communities and obtaining regional consensus regarding the sequencing of regional infrastructure projects. There is a funding challenge. A 50-50 match with local funding is required. Acquiring maps for distressed communities is a challenge. Another layer of challenge is that a minimum of six neighboring communities must participate in order to begin flying the photography required for creation of the maps.

14. List any other issues, problems, or ideas related to the following categories:
    a) Communication and warning
    b) Dam safety
    c) Emergency preparedness
    d) Floodplain management
    e) Geologic hazard mitigation
    f) Hazardous materials incidents
    g) Land use
    h) Public information/education

The Denali Commission is aware of the emergency preparedness issues of the communities listed in the GAO report (12/03) as eminently at risk from coastal erosion. However, the Commission has no assignment in this arena.

Capability Assessment Questionnaire

1. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc.

According to Alaska statute 41.08.020, the Division of Geological & Geophysical Surveys (DGGS) is charged with conducting "...geological and geophysical surveys to determine the potential of Alaskan land for production of metals, minerals, fuels, and geothermal resources; the locations and supplies of groundwater and construction materials; the potential geologic hazards to buildings, roads, bridges and other installations and structures..." With regard to geologic hazards, the Division identifies, describes, and maps geologic hazards in areas where it is funded to do so by the legislature or external sources. The Division's activities also includes identification of some geologic hazards on geologic maps that it produces for other purposes such as mineral or energy resource assessment.

2. Do the responsibilities listed in #1 act to increase or decrease the potential for future losses to natural disasters in your state?

The responsibilities of DGGS with regard to mapping and identifying natural hazards will, if the information is properly used, decrease potential for future losses to natural disasters by improving public knowledge about the location and nature of hazards. This information is useful for prioritizing mitigation resources by identifying areas where the resources should be concentrated to reduce risks.

3. Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.

DGGS produces maps and reports that identify, locate, and describe hazards from earthquakes, volcanoes, landslides, active faults, tsunamis, and snow avalanches, as well as general engineering-geologic information on rocks and soils. Knowing where hazards are and their severity is the first step in reducing vulnerability.

4. Does your organization own or manage lands or buildings in:
a) 100-yr floodplain - No
b) earthquake fault area - No
c) landslide/mudslide area - No
d) coastal area - No
e) areas subject to other hazards - No
If the answer is yes, what measures are being taken to protect these investments or structures?

4. With what Federal, state, local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above?

Division of Emergency Services (DMVA)
Department of Community and Economic Development
Department of Transportation and Public Facilities
State Pipeline Coordinators Office (DNR)
Division of Mining, Land, and Water (DNR)
Division of Governmental Coordination (Governor's Office)
Municipality of Anchorage Geotechnical Advisory Commission
Other municipal governments
Native corporations
Geological and engineering consultants
U.S. Geological Survey
National Oceanic & Atmospheric Administration

5. Describe any problems in coordination among Federal, state, and local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding, etc. How might these problems be remedied?

These activities can always be better coordinated.

6. What are your organization’s authorities?

The Division of Geological & Geophysical Surveys receives its authority from Alaska statute:

AS 41.08.020 Powers and duties. (a) The state geologist shall conduct geological and geophysical surveys to determine the potential of Alaskan land for production of metals, minerals, fuels, and geothermal resources; the locations and supplies of groundwater and construction materials; the potential geologic hazards to buildings, roads, bridges, and other installations and structures; and shall conduct such other surveys and investigations as will advance knowledge of the geology of the state. With the approval of the commissioner, the state geologist may acquire, by gift or purchase, geological and geophysical reports, surveys, and similar information.
(b) In addition, the division of geological and geophysical surveys shall [with regard to geologic hazards]:
..... (6) collect, evaluate, and distribute geologic data on seismic events and engineering geology of the state;
(7) identify potential seismic hazards that might affect development in the state;
(8) inform public officials and industry about potential seismic hazards that might affect development in the state.

7. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization's activities protect people and property from losses to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization's efforts in decreasing vulnerability?

Current statutory authorities and regulations are adequate for the activities of this division with regard to natural hazards.

8. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters?

DGGS publishes maps and reports containing information on the location and severity of geologic hazards in Alaska. This information can be used by the public and appropriate authorities help reduce potential losses from natural disasters. DGGS also provides consultation to other agencies and the public on geologic-hazards issues for which there may not be published information.

9. Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

No to both.

10. Are public opinion and input used to build support for the agency's mitigation programs?

Yes.

11. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement?

Maps and reports on geologic hazards could be produced at a faster rate with additional staff and operational funding. Long-term support would have to come from the state legislature.

12. Are existing funding levels adequate to carry out hazard mitigation activities? What short-term and long-term initiatives are funding solutions should be explored to expand funding availability?

See response to question 11.

13. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

Some data sources that could be valuable for assessing hazards to public safety are proprietary because they were developed by private-sector consultants for private clients (for example, geologic data in possession of Alyeska Pipeline Service Company).

15. List any other issues, problems, or ideas related to the following categories:
a) Communication and warning
b) Dam safety
c) Emergency preparedness
d) Floodplain management
e) Geologic hazard mitigation
f) Hazardous materials incidents
g) Land use
h) Public information/education

16. Please include any general observations or problems which may not have been covered by this questionnaire.

CAPABILITY ASSESSMENT QUESTIONNAIRE

16. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc.

The Division of Homeland Security & Emergency Management (DHS&EM) protects lives and property from Natural Hazards and Terrorism and provides rapid recovery from all disaster events. Through various means of public outreach, DHS&EM provides hazards awareness to the citizens of Alaska. The State Emergency Response Commission (SERC) coordinates directly with State and Federal agencies, boroughs, organized communities and the Local Emergency Planning Committees to reduce vulnerability to hazards. The SERC provides funding for preparedness, planning, hazards analysis, and (CRTK) inventories. DHS&EM acquires grant monies in order to accomplish mitigation projects throughout the State such as hazard mapping and public education. By means of the Disaster Policy Cabinet, State agencies can influence changes in State statutes to further mitigation efforts. The Governor, using the Administration Order process, can also direct State agencies to implement mitigation changes e.g. the State Erosion Policy.

17. Do the responsibilities listed in #1 act to increase or decrease the potential for future losses to natural disasters in your state?

Through the processes provided by State policy (planning, statutory changes, public education, preventive mitigation efforts), DHS&EM can decrease the potential for future losses resulting from natural or technological disasters in Alaska.

18. Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.

DHS&EM is a key organization in decreasing vulnerability to hazards through public education, prior planning, and mitigation project funding.

19. Does your organization own or manage lands or buildings in:

f) 100-yr floodplain
g) earthquake fault area
h) landslide/mudslide area
i) coastal area
j) areas subject to other hazards

If the answer is yes, what measures are being taken to protect these investments or structures?

NO

20. With what Federal, State, local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above?

List the agencies that are participating in developing the State Hazard Mitigation Plan. Check to ensure that also includes the SERC members.

State of Alaska
Office of the Governor
Division of Governmental Coordination
Alaska Coastal Management Program (ACMP)
Coastal Impact Assistance Program (CIAP)
Department of Administration
Division of Risk Management
Department of Community and Economic Development **–needs to be updated**
Division of Insurance
Division of Community and Business Development (DCBD)

Department of Education and Early Development
Department of Environmental Conservation
- ***Division of Air and Water Quality***
- ***Division of Environmental Health***
- ***Division of Spill Prevention and Response***
- ***Division of Statewide Public Service***

Department of Fish & Game
Department of Health & Social Services
- ***Division of State Health Planning and Development***

Department of Law
Department of Military & Veterans Affairs
- ***Division of Homeland Security and Emergency Managements***

Department of Natural Resources
- ***Division of Geological & Geophysical Surveys (DGGS)***
- ***Division of Mining, Land, and Water Management***
  - Alaska Dam Safety Program [AS 46.17 and Article 3 of 11 AAC 93].
- ***Division of Forestry***

Department of Public Safety
- ***Division of Alaska State Troopers***
- ***Division of Fire Prevention***
- ***Division of Fish & Wildlife Protection***

Department of Transportation & Public Facilities
- ***Division of Statewide Planning***
- ***Division of Statewide Design & Engineering Services***

University of Alaska Fairbanks
- ***UAF/GI***
- ***Alaska Earthquake Information Center***

State Emergency Response Commission
INSERT SERC MEMBER LIST HERE

Federal
Federal Emergency Management Agency
U. S. Geological Survey
- ***Alaska Volcano Observatory***

U.S. Army Corps of Engineers
Department of the Interior
Economic Development Administration
Environmental Protection Agency
Farm Service Agency
U.S. Fish and Wildlife Service
U.S. Forest Service
Federal Highway Administration
U.S. Department of Housing and Urban Development
Bureau of Land Management
National Marine Fisheries Service
National Park Service
Natural Resources Conservation Service
National Weather Service
- U.S. West Coast/Alaska Tsunami Warning Center.

Rural Development (US Department of Agriculture)
Small Business Administration

Other Stakeholders
Tanana Chiefs Conference
Alaska Inter-Tribal Conference
Denali Commission
American Red Cross
Alyeska Pipeline
Alaska Municipal League
Interagency Hydrology Committee for Alaska (IHCA)

21. Describe any problems in coordination among Federal, state, and local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding, etc. How might these problems be remedied?

The most recurring problems result when communities are required to complete very detailed grant applications that involve processes they are unfamiliar with e.g. Construction projects must have engineering studies, environmental assessments, and historical artifact determinations completed before the applications are approved for funding. Most rural communities do not have the expertise available, nor, the knowledge to make accurate determinations. Consequently, accurate Benefit Cost Analyses can not be developed showing the benefit of the activity.

Furthermore, future funding constraints for other State agencies may eliminate personnel positions and programs supporting mitigation efforts. Problems also occur due lack of qualified personnel available to complete applications who also have time to provide sufficient factual data to satisfy FEMA grant requirements and benefit/cost analysis.

Additionally, Alaska is a “home rule” State making this a sensitive political issue. Existing State Statutes prohibit agencies from directing community activities or government. Funding is not available for State level mitigation activities. Thus, lack of funding exacerbates this problem i.e., Alaska currently does not fund the State Seismic Safety Council due to budget shortfalls.

22. What are your organization’s authorities?

Alaska Statute 26.23, 44 CFR, Robert T. Stafford Act and Disaster Mitigation Act of 2000. (Probably some statutes in DCED, DOT, DEC, etc. that also apply).

23. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization’s activities protect people and property from losses to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization’s efforts in decreasing vulnerability?

Alaska is a "home rule" State making this a sensitive political issue. Existing State statutes prohibit agencies from directing community activity or government. Funding difficulties exacerbate this problem i.e., Alaska currently does not fund the State Seismic Safety Council nor do we have funding available for mitigation programs associated with State level disasters.

24. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters?

DHS&EM team works with the Alaska National Weather Service to conduct two weather related, warning dissemination implementation plans for rural communities: the River Watch Plan and the Fall Sea Storm Plan.

25. Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

Yes, the State All-Hazard Mitigation Plan, SECC SOPs, EAS and NAWAS SOPs for warning etc.

26. Are public opinion and input used to build support for the agency's mitigation programs?

Yes, Input is encouraged during Local community meetings, local government interaction, and public outreach activities. Local All-Hazard Mitigation Plans are evaluated and information is used to refine the State's All-Hazard Mitigation Plan.

27. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement?

We currently have four staff assigned to the mitigation section as follows:

- The State Hazard Mitigation Officer oversees all mitigation activities to include The Earthquake, Tsunami, Natural Disaster, and Pre-Disaster Mitigation Program.
- The Disaster Mitigation Office (Emergency Management Specialist) is responsible for working HMGP projects related to Federally declared disasters and supervising the Earthquake Program outreach activities.

- Two Pre-Disaster Mitigation Officers (Emergency Management Specialist) are responsible for coordinating Local/Tribal All-Hazard Mitigation Plan development state-wide.
- The Mitigation Section Assistant (Emergency Management Assistant)is responsible for coordinating all activities involved with editing, updating, and converting the State "Section 409" Plan to fulfill the criteria for the New" Section 32"2 State All-Hazard Mitigation Plan

28. Are existing funding levels adequate to carry out hazard mitigation activities? What short-term and long-term initiatives or funding solutions should be explored to expand funding availability?

There is not enough funding to conduct hazard mitigation throughout the State. The State does not reserve funding for mitigation programs. As disasters occur, we solicit legislative support for funding the match for federal disaster funds.

The State provides the match for federal grants instead of passing those costs on to the communities or agencies affected. This allows greater benefit to those affected by the disaster. However, the State should consider setting aside mitigation funds to encourage pre-disaster mitigation project development at the local level. Making funds available prior to disasters could greatly reduce the risks faced with future disasters. The problem is where to does the additional funding come from?

29. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

Currently, there is a drastic lack of mapped hazards to facilitate hazard vulnerability identification throughout the State and specifically at the community level. There is also a great lack of project development, engineering design and funding availability at the local community level. The lack of various levels of expertise dramatically reduces the chances of small communities receiving grants for construction projects. FEMA requires very precise, project specific information before benefit/cost project analysis can be completed. The majority of Alaska's communities are unable to accomplish the applications in an accurate and timely manner.

There appears to be a plethora of digitized information held by several agencies, but no method, protocol, or capability exists for sharing this information.

30. List any other issues, problems, or ideas related to the following categories:

i) Communication and warning Communities are too spread apart or are located in very remote locations preventing receipt of warning signals. Other communities

have varying capability of obtaining communication or warning. Several communities experience black-outs after normal working hours.

j) Dam safety: This section to be completed with coordination with The State Dam Safety Officer

k) Emergency preparedness: Lack of funding or capability

l) Floodplain management: Lack of desire by the community to create or enforce building code or zoning to prevent construction in hazard areas. Lack of funding to enable mitigation efforts

m) Geologic hazard mitigation:

n) Hazardous materials incidents:

o) Land use: Lack of building code and zoning adoption or enforcement

p) Public information/education:

31. Please include any general observations or problems which may not have been covered by this questionnaire.

None

CAPABILITY ASSESSMENT QUESTIONNAIRE
ALASKA DHSS-DPS SECTION OF COMMUNITY HEALTH AND EMS

1. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc.

The State Section of Community Health and Emergency Medical Services (CHEMS) is a section within the Dept. of Health and Social Services (DHSS), Division of Public Health. DHSS is charged with promoting and protecting the public health and one of CHEMS' responsibilities is the development, implementation, and maintenance of a statewide comprehensive emergency medical services system. The department's statutory mandate (AS 18.08.010) requires it to:
(1) coordinate public and private agencies engaged in the planning and delivery of emergency medical services, including trauma care, to plan an emergency medical services system;
(2) assist public and private agencies to deliver emergency medical services, including trauma care, through the award of grants in aid;
(3) conduct, encourage, and approve programs of education and training designed to upgrade the knowledge and skills of health personnel involved in emergency medical services, including trauma care; and
(4) establish and maintain a process under which hospitals and clinics can represent themselves to be trauma centers because they voluntarily meet criteria adopted by the department which are based on an applicable national evaluation system.

In addition to these responsibilities, the section is heavily involved in planning and responding to bioterrorist events.

2. Do the responsibilities listed in #1 act to increase or decrease the potential for future losses to natural disasters in your state?

Decrease future losses to the extent that a well-organized, trained and equipped emergency medical services system can quickly respond to a traumatic event or other emergencies and reduce the human suffering and economic loss to society resulting from life-threatening and disabling injuries.

3. Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.

The goal of the Emergency Medical Services program is to establish a comprehensive, coordinated system of emergency medical services that:

- assures citizens and visitors easy access to services;
- provides an injury prevention component;
- expedites initial response;
- ensures appropriate lifesaving and stabilization measures rendered at the scene; and
- ensures transport or transfer of patients in a timely and efficient manner to facilities capable of effecting maximum recovery and rehabilitation

4. Does your organization own or manage lands or buildings in:
a) 100-yr floodplain
b) earthquake fault area
c) landslide/mudslide area
d) coastal area
e) areas subject to other hazards
If the answer is yes, what measures are being taken to protect these investments or structures?

No.

5. With what Federal, state, local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above?

We work with a wide spectrum of agencies and entities in the public and private sectors to encourage public health planning and emergency response in the areas of medical care, transportation, communications, disease prevention and health promotion, response to terrorist threats and hazardous materials events.

6. Describe any problems in coordination among Federal, state, and local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding, etc. How might these problems be remedied?

Current funding is inadequate to meet all of our obligations regarding hazard mitigation.

7. What are your organization's authorities?

See answer to question #1.

8. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization's activities protect people and property from losses to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization's efforts in decreasing vulnerability?

Yes.

9. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters?

See the Dept. of Health and Social Services Disaster Response and Recovery Guide (http://chems.alaska.gov/dhssrrg.pdf).

10. Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

See answer to question #9.

11. Are public opinion and input used to build support for the agency's mitigation programs?

Yes, through a variety of means.

12. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement?

No. Currently staff members have multiple duties of which hazard mitigation is only a small portion. It is estimated that at least one full-time equivalent staff position is needed to carry out hazard mitigation activities. With associated support resources and costs, such as travel, it is estimated that $100,000. is needed to fund the position. No funding sources have been identified for this position.

13. Are existing funding levels adequate to carry out hazard mitigation activities? What short-term and long-term initiatives are (sic) funding solutions should be explored to expand funding availability?

No. Additional federal grants are needed.

14. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

No.

15. List any other issues, problems, or ideas related to the following categories:
a) Communication and warning
b) Dam safety
c) Emergency preparedness
d) Floodplain management
e) Geologic hazard mitigation
f) Hazardous materials incidents
g) Land use
h) Public information/education

None at present.

16. Please include any general observations or problems which may not have been covered by this questionnaire.

Currently there are too many work demands on too few staff members to be able to adequately address hazard mitigation.

Capability Assessment Questionnaire

What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc.

Answer: The goal of the Department is to provide safe, efficient, economical and effective operation of the State's highways, harbors and airports. The Department uses it's Planning, Design & Engineering, Maintenance & Operations and Intelligent Transportation Systems resources to identify the hazard, plan and initiate mitigation activities to meet the transportation needs of Alaskans and make Alaska a better place to live and work. The Department budgets for the temporary replacement bridges and materials necessary to make the multi-model transportation system operational following a natural disaster.

DO THE RESPONSIBILITIES LISTED IN #1 ACT TO INCREASE OR DECREASE THE POTENTIAL FOR FUTURE LOSSES TO NATURAL DISASTERS IN YOUR STATE?

Answer: The Departments roll decreases the potential for future loss. The inspection and closure of damaged bridges prevents traffic from using a structure that could collapse.

Planning for temporary repair or replacement of unsafe bridges will restore access for emergency management resources to the affected areas.

Construction of breakwaters at harbors mitigates damage from severe weather. Planning of resources and materials to make repairs prevents further damage.

The Department uses explosives to trigger avalanche and prevent unexpected events at critical locations along the highway system. These mitigation activities are conducted with Alaska Railroad.

Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.

Answer: The regular inspection and preventative maintenance of highways, bridges, harbors and airports insures facilities and structures are in the best condition to withstand the effects of natural disaster. The Department uses soil stabilization materials/techniques to prevent land and mud slide and mitigates avalanche damage and risk through controlled events.

The use of scour detection equipment is an Intelligent Transportation System solution which enables the Department to identify and prevent bridge footing deterioration.

Preparation of evacuation plans for fire and dam failure followed by practice of the plan helps reduce the loss of life.

Does your organization own or manage lands or buildings in:

100-yr floodplain
Answer: Yes. The facilities in the flood plane have dykes to hold back the water.
earthquake fault area
Answer: Yes. Designing facilities to earthquake code and having security straps on light fixtures and interior designed to reduce damage and hazard to personnel.
landslide/mudslide area
Answer: Yes. The Department uses soil stabilization materials and techniques.
coastal area
Answer: Yes. Ports and facilities are protected by breakwaters to reduce damage from severe weather. The Department uses site selection to reduce the tsunami hazard by using natural barriers or distance from the coast.
areas subject to other hazards
Answer: Yes. Fire is a hazard all facilities are subject to and the Department uses fire safety inspections, good housekeeping practices, training and evacuation procedures to reduce this hazard.
If the answer is yes, what measures are being taken to protect these investments or structures?

WITH WHAT FEDERAL, STATE, LOCAL, OR PRIVATE AGENCIES DOES YOUR AGENCY WORK IN EMPLOYING EFFORTS TO DECREASE VULNERABILITY TO THE HAZARDS LISTED IN #3 ABOVE?

Answer: The Department works with other agencies to evaluate and mitigate hazards by sharing information and planning strategies. The Department developed its evacuation plan in conjunction with Alaska Electric Light & Power to reduce loss of life in case the Salmon Creek Dam in Juneau fails.

The Federal Highway Administration supports funding of bridge structure and harbor breakwater construction to reduce damage in an earthquake and extreme weather. The Department works with and shares responsibility with local government for maintaining port facilities to improving survivability.

The Department shares bridge scour information with the Federal Hydrology Department to improve flood forecast and understanding.

DESCRIBE ANY PROBLEMS IN COORDINATION AMONG FEDERAL, STATE, AND LOCAL GOVERNMENT OFFICIALS AND YOUR ORGANIZATION WITH REGARD TO ASSISTANCE PROGRAMS, MITIGATION RESPONSIBILITIES, FUNDING, ETC. HOW MIGHT THESE PROBLEMS BE REMEDIED?

Answer: No unique problems at this time.

WHAT ARE YOUR ORGANIZATION'S AUTHORITIES?

Answer: The Department has Legislative authority for highways, harbors, airports and State owned facilities to expend funds for preventative maintenance, restoration and construction.

ARE EXISTING STATUTORY AUTHORITIES, STATUTES, AND REGULATIONS ADEQUATE TO ENSURE THAT YOUR ORGANIZATION'S ACTIVITIES PROTECT PEOPLE AND PROPERTY FROM LOSSES TO NATURAL DISASTERS? IF AUTHORITIES, STATUTES, AND REGULATIONS ARE CURRENTLY INADEQUATE, HOW MIGHT THEY BE EXPANDED SO AS TO ASSIST YOUR ORGANIZATION'S EFFORTS IN DECREASING VULNERABILITY?

Answer: Pending legislation will correct statutory authorities issues for the Department.

DOES YOUR AGENCY HAVE ANY PROGRAMS OR CAPABILITIES DESIGNED TO REDUCE POTENTIAL LOSSES FROM NATURAL DISASTERS?

Answer: Yes. Highway, harbor, airport and facility design/construction standards, preventative maintenance and restoration efforts improve the probability for survival from natural disasters.

Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

Answer: Yes, the Department has written procedures.

ARE PUBLIC OPINION AND INPUT USED TO BUILD SUPPORT FOR THE AGENCY'S MITIGATION PROGRAMS?

Answers: Yes, public meetings are held for planning and design phases of projects.

ARE EXISTING STAFFING LEVELS ADEQUATE TO CARRY OUT HAZARD MITIGATION ACTIVITIES? WHAT PROBLEMS AND RECOMMENDED SOLUTIONS CAN YOUR ORGANIZATION IDENTIFY REGARDING STAFFING LEVELS? IF SOLUTIONS TO

STAFFING PROBLEMS HAVE ASSOCIATED COSTS, WHAT ARE THOSE COSTS AND WHAT WOULD BE THE LIKELY FUNDING SOURCE TO MEET COST REQUIREMENT?

Answer: Pending Legislative budget cuts will reduce maintenance personnel and ability to inspect/repair highways, bridges, harbors and airports following a natural disaster.

ARE EXISTING FUNDING LEVELS ADEQUATE TO CARRY OUT HAZARD MITIGATION ACTIVITIES? WHAT SHORT-TERM AND LONG-TERM INITIATIVES OR FUNDING SOLUTIONS SHOULD BE EXPLORED TO EXPAND FUNDING AVAILABILITY?

Answer: Full funding of the Department's budget by the Legislature is essential to maintaining structures and facilities in a condition conducive to survival from natural disaster.

ARE THERE ANY PROBLEMS WITH ACCESSIBILITY OF DATA OR INFORMATION NEEDED TO CARRY OUT YOUR AGENCY'S ROLE IN DECREASING HAZARD VULNERABILITY?

Answer: Condition assessment of structures and features is not available at all locations. The Department is implementing a Maintenance Management System to capture feature inventory, needs assessment and standardize the reporting procedures.

LIST ANY OTHER ISSUES, PROBLEMS, OR IDEAS RELATED TO THE FOLLOWING CATEGORIES:
COMMUNICATION AND WARNING

Answer: The Department will purchase new digital communications radios with data ports to use the statewide repeater and switching system. Testing of the new system begins in October 2002. This improved communication will provide about 95% coverage statewide. The today's radio system provides coverage to about 45% of the road system and no data transfer.

Another ITS solution the Department is exploring is an Avalanche Detection System. This system will provide early warning of avalanche conditions and triggers to detect snow movement in areas prone to avalanche.

Alaska Electric Light & Power will install a new dam failure-warning siren this year near the three mile facility in Juneau. The siren in use now is not audible at the facility.

DAM SAFETY

Answer: An Evacuation Plan is under development for the facility located at three mile Egan Drive in Juneau. The plan covers evacuation route and procedures in the event that Salmon Creek Hydroelectric Dam should fail.

EMERGENCY PREPAREDNESS

Answer: Fire Evacuation Plans, first aid training and Hazardous Materials Incident and Reporting Procedures are in use statewide. Emergency notification, actions and incident reporting procedures are in regional standard operating procedures.

FLOODPLAIN MANAGEMENT

Answer: There is limited flood hazard data for Alaskan rivers. Therefore, the department works closely with the USGS and other regulatory agencies in pooled research and data gathering to increase our understanding of flood hazards. Each facility in a floodplain is designed to minimize affects on the flood hazard and to not increase the potential flood hazard.

GEOLOGIC HAZARD MITIGATION

Answer: Each section is responsible for appropriate geologic hazard orientation training for personnel.

HAZARDOUS MATERIALS INCIDENTS

Answer: Each section having hazardous materials has an incident action and reporting procedure.

LAND USE

Answer: Land use permits issued by the Department have hazard assessment and mitigation core to their strategy.

PUBLIC INFORMATION/EDUCATION

Answer: In the past, the Department issued hazard specific press releases to warn the public of events after they happen and before, in the case of controlled avalanche mitigation. In July 2002 the Department plans to activate the Condition Acquisition and Reporting System (CARS) on the Internet. The public will be able to get everything from severe weather warnings to road/lane closure information. CARS will enable public access to safety, weight restrictions and travel information not available before.

PLEASE INCLUDE ANY GENERAL OBSERVATIONS OR PROBLEMS WHICH MAY NOT HAVE BEEN COVERED BY THIS QUESTIONNAIRE.

Answer: Survey omitted avalanche as a hazard.

MATANUSKA-SUSITNA BOROUGH CAPABILITY ASSESSMENT QUESTIONNAIRE

Prepared by Mark Jacqua, Planning department, June 2004

32. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc.

MSB Planning and Land Use Department:

MSB planning department includes planning, historic resources, air and water quality, platting, and code compliance divisions. Land use and development activities within the borough must comply with land use code, permitting, and conform to comprehensive planning.
We intend to incorporate standards and review procedures that will decrease the potential for loss due to natural hazards. We intend to use the Borough Hazard Mitigation plan as a guiding document, and incorporate Natural Hazard mitigation sections in future land use code requirements, platting standards, and comprehensive planning documents.

33. Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.

Planning and land use code, platting and development standards, and comprehensive planning revisions will be reviewed and recommendations made to the Borough Assembly to approve amendments to comply with the State HMP.

34. Does your organization own or manage lands or buildings in:

k) 100-yr floodplain

Yes, the Mat-Su Borough retains lands, and acquires lands and easements within the floodplain to protect against economic loss and to retain natural buffers.

l) earthquake fault area

Most of the Core area of the Borough lies with the Castle Mountain fault zone.

m) landslide/mudslide area

Borough properties in Hatcher Pass and in the Talkeetna range are subject to landslides and mass wasting as well as avalanches. Structures are not maintained there.

n) coastal area

The Borough is a Coastal Management Plan district and has significant responsibility for compliance with ACMP.

o) areas subject to other hazards

Areas of the Borough are subject to wildfires, high winds, volcanic fallout and air quality problems.

If the answer is yes, what measures are being taken to protect these investments or structures?

Current and future planning efforts, including plan revision and new code requirements and permitting will incorporate NHMP standards to require improved compliance with mitigation planning, building and construction standards, platting approval and develop, and comprehensive plan analysis.

35. With what Federal, state, local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above?

Federal Emergency Management Agency, (FEMA), Alaska Coastal Zone Management, Alaska Department of Natural Resources, Alaska National Guard, Alaska Division of Forestry.
The Borough cooperates with local cities for emergency response, rescue, medical, and fire and with the State on law enforcement, wildland fire suppression, and emergency planning.

36. Describe any problems in coordination among Federal, state, and local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding, etc. How might these problems be remedied?

None at this time.

37. What are your organization's authorities?

The MSB is a second class borough under the State statute the Borough has the authority for planning, platting, solid waste, taxation, land use, school funding and others common to 2nd class borough status.

38. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization's activities protect people and property from losses to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization's efforts in decreasing vulnerability?

Yes.

39. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters?

Some, Fire response and protection, flood zone management, air and water quality.

Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

Flood zone protection is codified in MSB title 17, Zoning.

40. Are public opinion and input used to build support for the agency's mitigation programs?

The Borough uses significant public process in planning, platting and comprehensive plan review. Incorporation of NHMP in current and future plans and code revisions with require public review.

41. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement?

The borough has a minimal staff for the area and population, additional planning duties would likely require addition staff and resources. We would hope to share costs with other State and Federal agencies. Borough costs would likely be supported through property taxes and fee increases.

42. Are existing funding levels adequate to carry out hazard mitigation activities? What short-term and long-term initiatives are funding solutions should be explored to expand funding availability?

No. Joint State/Federal/Municipal funding schemes. Grants and in-kind match with local government.

43. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

The Borough is in need of up to date high resolution satellite imagery that can be incorporated into the GIS database to identify changes to land use and development within hazard areas.

44. List any other issues, problems, or ideas related to the following categories:

q) Communication and warning
r) Dam safety
s) Emergency preparedness
t) Floodplain management

The Borough needs updates erosion and flood plain analysis, improved topography and elevation information and erosion modeling for the Matanuska river.

u) Geologic hazard mitigation
v) Hazardous materials incidents
w) Land use
x) Public information/education

45. Please include any general observations or problems which may not have been covered by this questionnaire.

Answers to
Capability Assessment Questionnaire

1. The City of Seward responsibilities include; all emergency response activities within Seward City limits, and provision of additional aid to surrounding areas through mutual aid agreements with other agencies. The City of Seward's role within the boundaries is to; provide public education, development of City Ordinance, Codes or Standards, regulation of development via Fire, Building and State codes in enforcement, mapping and hazard identification within existing city limits and helping develop mitigation plans for existing problem areas.

2. City Planning Officials continue to help decrease potential losses due to natural hazards within the City. Potentially hazardous area have been identified and zoned accordingly, thus providing a comprehensive reference for present and future land use within the City.

3. The City of Seward working in conjunction with other regulatory agencies, developed

mitigation plans for known hazards or dangers within its area, plans are continuously updated. Flood plain management ordinance, comprehensive plan and strategic plan reference hazard mitigation.

4. The City of Seward owns and manages both lands and buildings, known to be in potentially hazard areas, i.e. flood plain, earthquake faults landslide/mudslide and coastal areas. Additional hazards are associated with a diversion dam and tunnel located within the City. Protection of these areas is provided by zoning regulations, code enforcement and mitigation plans.

5. Agencies involved in reduction of vulnerability within the city area are: City of Seward, Kenai Peninsula Borough, Federal Emergency Management Agency, and the Army Corp of Engineers.

6. Permitting associated with the plan development becomes problematic when faced with many agencies having different time lines for permitting and processing of permits as well as conflicting regulation between agencies.

7. State Statutes.

8. May be adequate, but usually have so many requirements for permits that the problems multiply. A coordination between agencies to streamline the permitting process.

9. A Comprehensive Plan and Strategic Plan reference hazard mitigation as well as state statutes.

10. Written plans are in place to reduce potential loss from certain natural disasters for the area.

11. Public opinion and input is solicited, accepted and integrated into programs for the area.

Capability Assessment Questionnaire
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12. No, not fully. Currently staff spends approximately one eighth of their time on mitigation projects. There is not enough staff to assign to this project. Cost for additional personnel range from 1 person ($60,000. Per year) to 3 personnel ($160,000. Per year). Founding source has not been identified.

13. Do what we can.

14. Lack of coordinated information base.

15. No current problem.

16. No comment.

4.2 State Capability Assessment

Requirement §201.4(c)(3) (ii): The State mitigation strategy shall include a discussion of the State's pre-and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including:

An evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas; [and]

Summary of Submitted Capability Assessments:

Each State agency administers its own program; however, DHS&EM is currently responsible for coordinating the bulk of State Hazard Mitigation programs and strategies.

The State Hazard Mitigation Officer (SHMO), and mitigation section staff, of the Division of Homeland Security and Emergency Management is responsible for Hazard Mitigation programs, strategies, and initiatives for the State of Alaska. The State Hazard Mitigation Advisory Committee (SHMAC) consists of members of approximately 42 State, Federal, and Local agencies or governments and was formed during the development of the State 409 Plan. The SHMO quickly recognized the value of the committee's involvement during the plan's development. Subsequently, various members of the SHMAC assist with reviewing mitigation project selection, plan updates, map acquisition, and policy recommendations. All SHMAC members work together to ensure that the mitigation programs compliment each other while contributing towards the State's overall mitigation strategy. The State All-Hazard Mitigation Plan used the Agency Capability Assessment Questionnaires as one of the many tools for developing the State's Mitigation Strategy.

Each agency received a Capability Assessment Questionnaire (The completed questionnaires are located in Appendix). The questionnaire addressed 16 focused areas for assessing their individual capability. The following summaries their responses:

46. What are your organization's roles and responsibilities and how do the activities and programs of your organization serve to decrease vulnerability to hazards? Include information about hazard/mapping/identification, regulation of development, founding of housing or infrastructure, development of codes or standards, public education, etc.

The Division of Homeland Security & Emergency Management (DHS&EM) protects lives and property from Natural Hazards and Terrorism and provides rapid recovery from all disaster events. Through various means of public outreach, DHS&EM provides hazards awareness to the citizens of Alaska. The State Emergency Response Commission (SERC) coordinates directly with State and Federal agencies, boroughs, organized communities and the Local Emergency Planning Committees to reduce vulnerability to hazards. The SERC provides funding for preparedness, planning, hazards analysis, and (CRTK) inventories. DHS&EM acquires grant monies in order to accomplish mitigation projects throughout the State such as hazard mapping and public education. By means of the Disaster Policy Cabinet, State agencies can influence changes in State statutes to further mitigation efforts. The Governor, using the Administration Order process, can also direct State agencies to implement mitigation changes e.g. the State Erosion Policy.

Incorporate standards; review procedures determine development activities; promote the public health of the State; provide educational and awareness programs and training; assure continuity of business; ensure the design, construction, alteration, repair, maintenance and operation of facilities; land use planning; ensure fuel and power availability; access to transportation corridors and facilities; availability of safe food and water; pollution prevention; identification of geological hazards, mapping of hazards; and early warning of potential threats fire fuels management activities are consistent with mitigation goals: Protecting life and property.

47. Q: Do the responsibilities listed in #1 act to increase or decrease the potential for future losses to natural disasters in your state?
R: Through the processes provided by State policy (planning, statutory changes, public education, and preventive mitigation efforts), State agencies and Local /Tribal governments **decrease** the potential for future losses resulting from natural or technological disasters in Alaska.

48. Q: Briefly describe the role your organization plays in efforts to decrease vulnerability to the hazards identified in the State Hazard Mitigation Plan.
R: State agencies and Local /Tribal governments are key organizations in decreasing vulnerability to hazards through comprehensive, coordinated public education, planning, assisting supervising, reviewing, inspecting, enforcing, product assimilation, and funding mitigation projects.

49. Q: Does your organization own or manage lands or buildings in:
    p) 100-yr floodplain,
    q) earthquake fault area
    r) landslide/mudslide area
    s) coastal area
    t) areas subject to other hazards

If the answer is yes, what measures are being taken to protect these investments or structures?
For the most part, agencies own land in several areas throughout the State. However, structures are built to code and do not have facilities that would stand out as being located in uniquely hazardous areas. Measures have been taken to protect such sites from wildfire and buildings meet Local ordinances for flooding and earthquake structural mitigation.

50. Q: With what Federal, State, Local, or private agencies does your agency work in employing efforts to decrease vulnerability to the hazards listed in #3 above?
R: List the agencies that are participating in developing the State Hazard Mitigation Plan. Check to ensure that also includes the SERC members.

State of Alaska
- ***Office of the Governor***
- ***Division of Governmental Coordination***
- Alaska Science and Technology Foundation
- Alaska Coastal Management Program (ACMP)
- Coastal Impact Assistance Program (CIAP)
- Department of Administration
  - ***Division of Risk Management***
- ***Department of Community and Economic Development***
  - ***Division of Community Advocacy***
  - ***Division of Insurance***
  - ***Division of Community and Business Development (DCBD)***
- ***Department of Education and Early Development***
- ***Department of Environmental Conservation***
  - ***Division of Air and Water Quality***
  - ***Division of Environmental Health***
  - ***Division of Spill Prevention and Response***
  - ***Division of Statewide Public Service***
- ***Department of Fish & Game***
  - Division of Wildlife Conservation
- ***Department of Health & Social Services***
  - ***Division of State Health Planning and Development***
- ***Department of Law***
- ***Department of Military & Veterans Affairs***
  - ***Division of Homeland Security and Emergency Managements***
- ***Department of Natural Resources***
  - ***Division of Geological & Geophysical Surveys (DGGS)***
  - ***Division of Mining, Land, and Water Management***
  - Alaska Dam Safety Program [AS 46.17 and Article 3 of 11 AAC 93].
  - ***Division of Forestry***
- ***Department of Public Safety***
  - ***Division of Alaska State Troopers***
  - ***Division of Fire Prevention***
  - ***Division of Fish & Wildlife Protection***
- ***Department of Transportation & Public Facilities***
  - ***Division of Statewide Planning***
  - ***Division of Statewide Design & Engineering Services***
  - Ted Stevens International Airport
- ***University of Alaska Fairbanks***
  - ***UAF/GI***
  - ***Alaska Earthquake Information Center***
- ***State Emergency Response Commission***

INSERT SERC MEMBER LIST HERE

Federal
- ***Federal Emergency Management Agency***

U. S. Geological Survey
Alaska Volcano Observatory
U.S. Army Corps of Engineers
Department of the Interior
Economic Development Administration
Environmental Protection Agency
Farm Service Agency
Federal Aviation Administration
Federal Highway Administration
U.S. Agency for International Development
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Department of Defense
US Air Force
U.S. Army
U.S. Coast Guard
U.S. Department of Housing and Urban Development
Bureau of Land Management
National Marine Fisheries Service
National Park Service
Natural Resources Conservation Service
National Oceanic and Atmospheric Administration
National Weather Service
West Coast/Alaska Tsunami Warning Center.
Rural Development (US Department of Agriculture)
Small Business Administration

Other Stakeholders
Advance National Seismic System
Anchorage Geotechnical Commission
Alaska Air Carriers Association
Tanana Chiefs Conference
Alaska Inter-Tribal Conference
Denali Commission
American Red Cross
Alyeska Pipeline
Alaska Municipal League
Interagency Hydrology Committee for Alaska (IHCA)
Airline Pilots Association
Air Transport Association
Kamchatkan Volcanic Eruption Response Team
International Civil Aviation Organization

51. Describe any problems in coordination among Federal, State, and Local government officials and your organization with regard to assistance programs, mitigation responsibilities, funding, etc. How might these problems be remedied?

The most recurring problems result when communities are required to complete very detailed grant applications that involve processes they are unfamiliar with e.g. Construction projects must have engineering studies, environmental assessments, and historical artifact determinations completed before the applications are approved for funding. Most rural communities do not have the expertise available, nor, the knowledge

to make accurate determinations. Consequently, accurate Benefit Cost Analyses can not be developed showing the benefit of the activity.

Future funding constraints for other State agencies may eliminate personnel positions and programs supporting mitigation efforts. Problems also occur due lack of qualified personnel available to complete applications who also have time to provide sufficient factual data to satisfy FEMA grant requirements and benefit/cost analysis.

Federal offices delay obligating or transmitting funds for approved projects and the construction window is missed for the calendar year. We need to actively work with Federal funding agencies to increase their understanding of the realities of the remoteness and difficulties of delivering services to rural Alaska.

Additionally, Alaska is a "home rule" State making this a sensitive political issue. Existing State Statutes prohibit agencies from directing community activities or government. Funding is not available for State level mitigation activities. Thus, lack of funding exacerbates this problem i.e., Alaska currently does not fund the State Seismic Safety Council due to budget shortfalls.

52. What are your organization's authorities?

A list of the most predominate:

44 CFR, Robert T. Stafford Act and Disaster Mitigation Act of 2000, Alaska Statute(AS) 26.23, Alaska Statute (AS) 18.08.010, Denali Commission Act of 1998, 42 USC 3121 §302, AS 41.08.020, AS 46.40, 6 AAC 50, 6 AAC 80, and 6 AAC 85, 6 AAC 80.050, Coastal Zone Management Act §309

53. Are existing statutory authorities, statutes, and regulations adequate to ensure that your organization's activities protect people and property from losses to natural disasters? If authorities, statutes, and regulations are currently inadequate, how might they be expanded so as to assist your organization's efforts in decreasing vulnerability?

For the most part, existing statutory authorities are adequate for agencies to accomplish their respective taskings.

However, Alaska is a "home rule" State making this a sensitive political issue. Existing State statutes prohibit agencies from directing community activity or government. Funding difficulties exacerbate this problem i.e., Alaska currently does not fund the State Seismic Safety Council nor do we have any mitigation funds available from State level disasters to reduce the potential loss resulting from the next disaster.

54. Does your agency have any programs or capabilities designed to reduce potential losses from natural disasters?

DHS&EM team works with the Alaska National Weather Service to conduct two weather related, warning dissemination implementation plans for rural communities: the River Watch Plan and the Fall Sea Storm Plan. DOT has updated highway, airport, harbor, and facility design / construction standards, preventative maintenance and restoration efforts to improve probability for survival of natural disasters.

55. Does your agency have written policies or procedures designed to reduce losses from natural disasters? Are written policies or procedures needed?

Yes, the State All-Hazard Mitigation Plan, SECC SOPs, EAS and NAWAS SOPs for warning etc. Each agency has indicated they have written policies and procedures that can be reviewed or consulted.

56. Are public opinion and input used to build support for the agency's mitigation programs?

    Yes, Input is encouraged during Local community meetings, Local government interaction, and public outreach activities. Local All-Hazard Mitigation Plans are evaluated and information is used to refine the State's All-Hazard Mitigation Plan.

57. Are existing staffing levels adequate to carry out hazard mitigation activities? What problems and recommended solutions can your organization identify regarding staffing levels? If solutions to staffing problems have associated costs, what are those costs and what would be the likely funding source to meet cost requirement?

    We currently have four staff assigned to the mitigation section as follows:
    - The State Hazard Mitigation Officer oversees all mitigation activities to include The Earthquake, Tsunami, Natural Disaster, and Pre-Disaster Mitigation Program.
    - The Disaster Mitigation Office (Emergency Management Specialist) is responsible for working HMGP projects related to Federally declared disasters and supervising the Earthquake Program outreach activities.
    - Two Pre-Disaster Mitigation Officers (Emergency Management Specialist) are responsible for coordinating Local/Tribal All-Hazard Mitigation Plan development state-wide.
    - The Mitigation Section Assistant (Emergency Management Assistant)is responsible for coordinating all activities involved with editing, updating, and converting the State "Section 409" Plan to fulfill the criteria for the New" Section 32"2 State All-Hazard Mitigation Plan
    - The State Seismic Safety Commission is not currently funded. The Director, DNR is the acting Chairperson, however, no identified positions have been filled because this newly developed commission is under review for possible dissolution.
    - Some agencies suffer from understaffing preventing product development such as hazard mapping, vulnerability analysis. Other activities that could suffer if funding levels deviate too far are construction design review and project oversight.

58. Are existing funding levels adequate to carry out hazard mitigation activities? What short-term and long-term initiatives or funding solutions should be explored to expand funding availability?

    There is not enough funding to conduct hazard mitigation throughout the State. The State does not reserve funding for mitigation programs. We receive mitigation project funding from large disasters that reach Presidential Declaration parameters. Once a disaster occurs, we solicit legislative support for funding the match for Federal disaster funds. Pre-Disaster and Flood Mitigation Assistance funding are also limited and competitive. Many projects will never reach fruition because the number of good projects far out number the availability of funds.

    The State provides the match for Federal grants instead of passing those costs on to the communities or agencies affected. This allows greater benefit to those affected by the disaster. However, the State should consider setting aside mitigation funds to encourage pre-disaster mitigation project development at the Local level. Making funds available prior to disasters could greatly reduce the risks faced with future disasters. The problem is where to does the additional funding come from?

59. Are there any problems with accessibility of data or information needed to carry out your agency's role in decreasing hazard vulnerability?

    Currently, there is a drastic lack of mapped hazards to facilitate hazard vulnerability identification throughout the State and specifically at the community level. The Geo-

referenced historical data, community level critical facility, and infrastructure data is only about 75% accurate for Alaska. DHS&EM is currently working with SHMAC members to develop geo-spacial maps of the known hazards so vulnerability analyses can be conducted using VRiskMap® software to determine the threat to the State's population and infrastructure.

There is also a great lack of project development and management, engineering design, and project funding available at the Local / Tribal government level. The lack of expertise dramatically reduces the chances of small communities receiving grants for construction projects. FEMA requires very precise, project specific information before benefit/cost analyses (BCAs) can be completed. The majority of Alaska's communities are unable to manage the application process in a comprehensive and timely manner.

60. List any other issues, problems, or ideas related to the following categories:
    - y) Communication and warning Communities are too spread apart or are located in very remote locations preventing receipt of warning signals. Other communities have varying capability of obtaining communication or warning. Several communities experience black-outs after normal working hours.
    - z) Dam safety: This section to be completed with coordination with The State Dam Safety Officer
    - aa) Emergency preparedness: Lack of funding or capability
    - bb) Floodplain management: Lack of desire by the community to create or enforce building code or zoning to prevent construction in hazard areas. Lack of funding to enable mitigation efforts
    - cc) Geologic hazard mitigation:
    - dd) Hazardous materials incidents:
    - ee) Land use: Lack of building code and zoning adoption or enforcement
    - ff) Public information/education:

61. Please include any general observations or problems which may not have been covered by this questionnaire.

    A few agencies reported they currently have too many work demands on too few staff members to be able to adequately address hazard mitigation.

4.3 Local Capability Assessment

Requirement 44 CFR §201.4(c)(3) (ii): The mitigation strategy shall include a general description and analysis of the effectiveness of Local mitigation policies, programs, and capabilities.

DHS&EM has also been actively working with Local governments throughout the State to generate interest and develop initiatives for hazard mitigation. The focus of this initiative is to generate interest at the Local level and create advocates for the program. This work has taken place through the following forums:

DHS&EM mitigation staff schedule and conduct Mitigation for Emergency Managers workshops to educate Local emergency managers on the various mitigation programs and initiatives that are available and the benefits of those programs. These workshops provide an opportunity for an exchange of ideas and the development of mitigation initiatives based on the evaluation of state and Local needs. Additionally, it helps generate interest in the mitigation program from the ground up.

The DHS&EM/MEPA Spring Conference is an annual event and includes workshops on a variety of subjects. One of those workshops addresses the mitigation program. Topics have included the mitigation planning process, risk assessment, identification and development of viable mitigation projects, cost benefit analysis, and public-private partnerships. Attendees include Federal, state, and Local emergency management officials, state and Local elected representatives, business and industry representatives, and volunteer organizations.

DHS&EM publishes a quarterly newsletter that is used to address issues of concern related to all aspects of emergency management, to include hazard mitigation. This newsletter is sent to emergency management officials, state and Local elected officials. DHS&EM also distributes an EMD Bulletin twice a month. This bulletin provides an opportunity for DHS&EM to address issues that may arise between the distribution of issues of the Quarterly Newsletter. The bulletin is sent to Local emergency managers. The newsletter and the bulletin have been used to explain mitigation planning requirements, solicit ideas/initiatives, highlight community mitigation success stories, and explain Federal/state mitigation requirements.

The State mitigation program is making a concerted effort to spread the word on the short and long-term benefits of well-planned, comprehensive mitigation initiatives. This is done through the use of newsletters, training workshops, conferences, success stories, etc. While the formal adoption of codes and standards may not be possible for some jurisdictions, efforts are being made to strongly encourage Local government, businesses, and individuals to voluntarily adopt building practices and land use planning that take mitigation measures into consideration. By demonstrating the long term benefits of these measures to the community at large we are seeing more of these initiatives take hold. Many jurisdictions are getting involved in various on-going planning activities related to community growth. Some of these include:

Land Use Planning. Local governments are using land use planning to identify areas subject to damage from natural hazards and are working to keep inappropriate development out of those areas. Counties and cities are starting to work together in some areas to coordinate land use issues so that one jurisdiction does not adversely affect the other.

Subdivision Regulations. Jurisdictions are starting to look at the impacts of existing and planned subdivision developments and methods to reduce and/or eliminate those impacts. Combinations of storm water retention projects and locally funded buyouts are making a significant difference in this area.

Capital Improvement Planning: More and more jurisdictions are taking cost-effective mitigation measures into consideration when developing capital improvement projects. Success stories continue to show that development, with associated mitigation measures, can take place with minimal natural hazard risk. The dissemination of these success stories will continue to strengthen the overall mitigation program at both the state and local levels.

Data Limitation Note: DHS&EM's knowledge of and ability to analyze local policies, programs and capabilities will continue to improve through the local mitigation plans currently being developed. DHS&EM will incorporate that improved knowledge and analysis in future updates of the State Hazard Mitigation Plan as Local plans are approved.

4.4 Mitigation Measures

Requirement 44 CFR §201.4(c)(3) (iii): The plan shall include an identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to Local plans, where specific Local actions and projects are identified.

This section of the State Hazard Mitigation Plan addresses the issue of identification and evaluation of cost-effective and technically feasible hazard mitigation projects and initiatives. All hazard mitigation projects within the State are designed to mitigate the affects of disasters on one or more of the following:

Life safety of the at-risk population;

National Flood Insurance Program (NFIP) repetitive loss properties;

Private structures and properties;

Government facilities;

Public infrastructure (through Section 404 HMGP program funds);

Environmental resources;

Functionality of critical facilities; and

Public facilities and infrastructure damaged by a disaster that can be mitigated through FEMA's Public Assistance program funding.

The process used to identify cost-effective and technically feasible mitigation projects/actions will be based, primarily, on the source of the mitigation funds.

4.4.1 Disaster Funds

Mitigation funds that are available as a result of a Presidentially declared disaster are based on a percentage of the overall Federal share of disaster assistance provided as a result of that disaster. Mitigation funds can be used anywhere in the State and on any hazard, however, priority will be given to:

1. Mitigation projects related to the hazard that necessitated the disaster declaration; and
2. Those jurisdictions included in the disaster declaration.

DHS&EM hazard mitigation staff will work with FEMA mitigation staff to determine the approximate amount of hazard mitigation funds available to the State. Then, the SHMO and the will provide a suggested course of action to the Governor's Disaster Policy Cabinet for their

determination as to the specific hazard mitigation issues to be addressed with projected mitigation funds. DHS&EM staff then will notify all potential applicants of the availability of mitigation funds and request the submission of proposed mitigation projects.

DHS&EM mitigation staff will review these proposals for the following criteria:

1. Does the project compliment existing State and local mitigation goals and objectives?
2. Is the project cost-effective, based on applying the submitted project data to FEMA's benefit cost analysis module?
3. Are sufficient mitigation funds available to complete the project?
4. Does the applicant have sufficient funds (if other funds are not available) to meet the Local share of the project?
5. Does the project solve a problem?
6. Is the applicant located within the declared areas for the applicable disaster? (This does not prevent a mitigation project from being approved.)

If necessary, DHS&EM mitigation staff may coordinate, in conjunction with FEMA and the applicant, with other State and/or Federal agencies to ensure that the project complies with all State and/or Federal laws and regulations. These requirements include, but are not limited to, the Endangered Species Act, the Historic Preservation Act, Floodplain Management, and National Environmental Policy Act requirements.

The SHMO and the SHMAC will prioritize the final mitigation project packages according to the State All-Hazard Mitigation Plan goals and objectives, submit them to the Governor's Disaster Policy Cabinet for their review and action, and then forward to the list to the Governor for final approval. Once the Governor has returned the approval notification, the applications will be sent to FEMA Region 10 mitigation staff for final approval.

Federal Unmet Needs Programs

Mitigation funds associated with a Federal unmet needs program are generally available only if the U.S. Congress directs funding towards the program. These mitigation funds can only be used in those jurisdictions identified for the applicable unmet needs allocation. These jurisdictions are generally associated with specific presidential disaster declarations. The State's flexibility in identifying potential mitigation projects is somewhat limited because the unmet needs funding allocation will usually specify the types of mitigation projects that can be funded with unmet needs money.

DHS&EM hazard mitigation staff will work with FEMA mitigation staff to determine the approximate amount of unmet needs hazard mitigation funds available to the State. State officials will determine the specific hazard mitigation issues to be addressed with projected mitigation funds. DHS&EM will notify all potential applicants of the availability of unmet needs mitigation funds and request the submission of proposed mitigation projects.

DHS&EM mitigation staff will review these proposals for the following criteria:

1. Does the project compliment existing State and Local mitigation goals and objectives?
2. Is the project cost-effective, based on applying the submitted project data to FEMA's benefit cost analysis module?

3. Are sufficient mitigation funds available to complete the project?
4. Does the applicant have sufficient funds (if other funds are not available) to meet the Local share of the project?
5. Does the project solve a problem?
6. Is the applicant located within the areas designated by the unmet needs funds allocation?

If necessary, DHS&EM mitigation staff may coordinate, in conjunction with FEMA and the applicant, with other State and/or Federal agencies to ensure that the project complies with all State and/or Federal laws and regulations. These requirements include, but are not limited to, Endangered Species Act, Historic Preservation Act, Floodplain Management, and National Environmental Policy Act requirements.

DHS&EM mitigation staff will forward the final mitigation project package to FEMA Region 10 mitigation staff for final approval.

The FY 2003 budget provided $150 million to initiate a new competitive Pre-Disaster Mitigation (PDM) Grant Program for State, Tribal and Local government mitigation planning activities and projects. The new competitive program is intended to provide technical and financial assistance to states and Local governments to assist in the implementation of pre-disaster hazard-mitigation measures that are cost-effective and that are designed to reduce injuries, loss of life, and damage and destruction of property, including damage to critical services and facilities under the jurisdiction of the States or Local governments and to create an interagency task force to address pre-disaster mitigation. Eligible entities were required to provide a 25 percent non-Federal match for these grants, with small, impoverished communities eligible for a 10 percent non-Federal match. About $13.5 million was set aside for planning purposes and $3.6 million for a Disaster Resistant University program. A cap of $3 million was established for mitigation projects. Up to 10 percent may be used for information dissemination activities related to the project. Management costs are capped at 10 percent. DHS&EM mitigation staff will review proposals for the following criteria:

1. Does the project compliment existing State and Local mitigation goals and objectives?
2. Is the project cost-effective, based on applying the submitted project data to FEMA's benefit cost analysis module?
3. Are sufficient mitigation funds available to complete the project?
4. Does the applicant have sufficient funds (if other funds are not available) to meet the Local share of the project?
5. Does the project solve a problem?

4.4.2 Other Mitigation Programs

The availability of mitigation funds associated with other Federal/State programs is dependent on the specific program in question. These mitigation funds can only be used in those jurisdictions that have locally adopted and FEMA approved All-Hazard Mitigation Plans and are identified by the applicable program. Only the eligible, submitting jurisdictions will have access to the funds.

The State's flexibility in identifying potential mitigation projects is somewhat limited because of the particular requirements associated with each program. We encourage every jurisdiction to submit mitigation projects that compliment current State and Local hazard mitigation goals and objectives. Local officials will determine the specific hazard mitigation issues to be addressed with projected mitigation funds. The Disaster Policy Cabinet makes the final prioritization determination for disaster related mitigation funded projects.

Since these programs are sometimes initiated between the jurisdiction and the applicable program staff, DHS&EM mitigation staff will review Local mitigation proposals only upon request and if personnel are available. If that review is requested, DHS&EM mitigation staff will review the project based on the same criteria used for disaster related mitigation projects. Those criteria are as follows:

1. Does the project compliment existing State and Local mitigation goals and objectives?
2. Is the project cost-effective based on applying the submitted project data to FEMA's benefit cost analysis module?
3. Are sufficient mitigation funds available to complete the project?
4. Does the applicant have sufficient funds (if other funds are not available) to meet the Local share of the project?
5. Does the project solve a problem?

DHS&EM mitigation staff will advise the jurisdiction to coordinate with other State and/or Federal agencies to ensure that the project complies with all State and/or Federal laws and regulations. These requirements include, but are not limited to, the Endangered Species Act, the Historic Preservation Act, Floodplain Management, and National Environmental Policy Act requirements.

DHS&EM mitigation staff will forward their comments to the jurisdiction for their final review and determination.

When evaluating mitigation projects that have been submitted for review and possible approval, several factors must be taken into consideration. These factors include, but are not limited to, the following:

1. The specific requirements and/or restrictions placed on the projects by the funding source.
2. There will always be more requests for mitigation funds than available through the program.
3. Federal and State funding for mitigation projects will be limited and in some instances may not be available.
4. Whenever possible, Local jurisdictions should develop mitigation projects and initiatives that can be funded locally.
5. Local jurisdictions should actively pursue public-private partnerships, where appropriate, to achieve desired mitigation goals.
6. The requested mitigation project should compliment the goals and objectives of the State and Local mitigation strategy.

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